Description of a new species of the genus *Polyptychus* Hübner, [1819] "1816" from the Lesser Sunda Islands, Indonesia, with notes on several species of the subtribe Choerocampina (Lepidoptera: Sphingidae)

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Abstract: A new species of the genus *Polyptychus* Hübner, [1819] "1816" (Lepidoptera: Sphingidae), *Polyptychus* ***claudiae*** **n. sp.,** is described from the Lesser Sunda Islands of Lombok, Sumba, Sumbawa, Komodo, Flores, and Timor, Indonesia. The holotype ♂, ex coll. R. Brechlin, Pasewalk (Germany), is deposited in coll. Museum Witt, Munich (which will later be included in the Zoologische Staatssammlungen München, Munich, Germany). Adults of both sexes and the male genitalia are illustrated. The new species is compared with *Polyptychus trilineatus* Moore, 1888. The recently described subspecies of *Theretra natashae* Cadiou, 1995 from Lombok, *T. n. paukstadtorum* Eitschberger, 2000 (**syn. nov.**), is synonymized with the nominotypical form from Flores. Examination of additional material from Lombok, Sumbawa, Sumba and Flores shows that the diagnostic characters of *paukstadtorum*, in both external appearance and male and female genital structure, all fall within the range of individual variation of this species. The harpes of examples of *T. natashae* from all four islands are illustrated. New distribution records from the Lesser Sunda Islands are given for the following hawkmoths: *Hippotion paukstadti* Cadiou, 1995, *Theretra incarnata* Rothschild & Jordan, 1903 and *Theretra insignis kuehni* (Rothschild, 1900).

Keywords: Lepidoptera, Sphingidae, Smerinthinae, Macroglossinae, Choerocampina, *Polyptychus*, *P. claudiae* **n. sp.**, *Theretra*, *Hippotion*, Lesser Sunda Islands, Indonesia, Lombok, Sumbawa, Sumba, Komodo, Flores, Timor, new records.

Beschreibung einer neuen Art der Gattung *Polyptychus* Hübner, [1819] „1816" von den kleinen Sundainseln, Indonesien, mit Anmerkungen zu einigen Arten des Subtribus Choerocampina (Lepidoptera, Sphingidae)

Zusammenfassung: Eine neue Art der Gattung *Polyptychus* Hübner, 1819 [„1816"] (Lepidoptera: Sphingidae) von den Kleinen Sundainseln Lombok, Sumba, Sumbawa, Komodo, Flores und Timor, Indonesien, wird beschrieben und in beiden Geschlechtern farbig abgebildet: *Polyptychus* ***claudiae*** **n. sp.,** Holotyp ♂, ex coll. R. Brechlin, Pasewalk, in coll. Museum Witt (letztendlich in Zoologische Staatssammlungen München), München. Die neue Art ist innerhalb des Genus *Polyptychus* dem Taxon *P. trilineatus* Moore, 1888 am ähnlichsten und wird daher vor allem mit diesem verglichen. Des weiteren wird die kürzlich von Lombok beschriebene Unterart von *Theretra natashae* Cadiou, 1995, *T. n. paukstadtorum* Eitschberger, 2000, mit der von Flores beschriebenen Nominatform synonymisiert (**syn. nov.**). Vergleichende Untersuchungen an einer großen Anzahl von Faltern dieser Art von Lombok, Sumbawa, Sumba und Flores zeigten, daß die für *paukstadtorum* angeführten diagnostischen Verschiedenheiten, sowohl was die externen als auch die genitalmorphologischen Charakteristika betrifft, in die individuelle Variationsbreite des Taxons fällt. Die Harpen von Faltern von *T. natashae* aller vier genannten Inseln (auf denen die Art bisher nachgewiesen wurde) werden abgebildet. Außerdem werden neue Erkenntnisse zur Verbreitung der Sphingiden *Hippotion paukstadti* Cadiou, 1995, *Theretra incarnata* Rothschild & Jordan, 1903 und *Theretra insignis kuehni* (Rothschild, 1900) veröffentlicht.

Introduction

The Lepidoptera of the Lesser Sunda Islands, east of Bali in southern Indonesia, are still quite poorly investigated, even in the normally well-studied family Sphingidae. However, recent collecting by the first author and others, particularly Ulrich Paukstadt and Stefan Naumann, has begun to improve our understanding of the sphingid fauna of these islands and has already led to the description of several new species (Cadiou 1995, Brechlin 1998a, 1998b, Eitschberger 2000). In this paper, we describe a new species of the genus *Polyptychus* Hübner, 1819 [„1816"] from the Lesser Sunda Island provinces of Nusa Tenggara Barat and Nusa Tenggara Timur. Following study of extensive new material of *Theretra natashae* Cadiou, 1995, we conclude there is no justification for continuing to recognize the recently described *Theretra natashae paukstadtorum* Eitschberger, 2000, as a subspecies. We also give new distribution records for some species of the genera *Hippotion* and *Theretra*.

Abbreviations:

BMNH	The Natural History Museum, London, U.K.
EMEM	private collection Entomologisches Museum Eitschberger, Marktleuthen, Germany.
fwl.	forewing length (from base to tip).
CRBP	private collection Ron Brechlin, Pasewalk, Germany.
CJMC	private collection Jean-Marie Cadiou, Brussels, Belgium.
NTB	Indonesian province of Nusa Tenggara Barat.
NTT	Indonesian province of Nusa Tenggara Timur.
USNM	The National Museum of Natural History, Washington D.C., U.S.A.
ZMA	Zoölogisch Museum Amsterdam, Netherlands.

Polyptychus claudiae n. sp.

Holotype: ♂, Indonesia: Nusa Tenggara Barat, Sumbawa, 16 km E of Dompu, Lara, primary/secondary forest, 160 m, 24.–25. iv. 1996, leg. R. Brechlin [in coll. Museum Witt, Munich (Germany) (to be deposited later in the Zoologische Staatssammlungen München, Munich, Germany)].

Paratypes (in total 172 ♂♂, 5 ♀♀):

Indonesia, NTB, Sumbawa (108 ♂♂, 4 ♀♀): 1 ♂, data as holotype; 2 ♂♂, 30 km W of Dompu, Kempo, 80 m, primary/secondary forest, 17.–18. iii. 1996, leg. R. Brechlin; 27 ♂♂, Karaku, 60 km from Dompu, 30 m, 21.–30. xii. 1996, leg.

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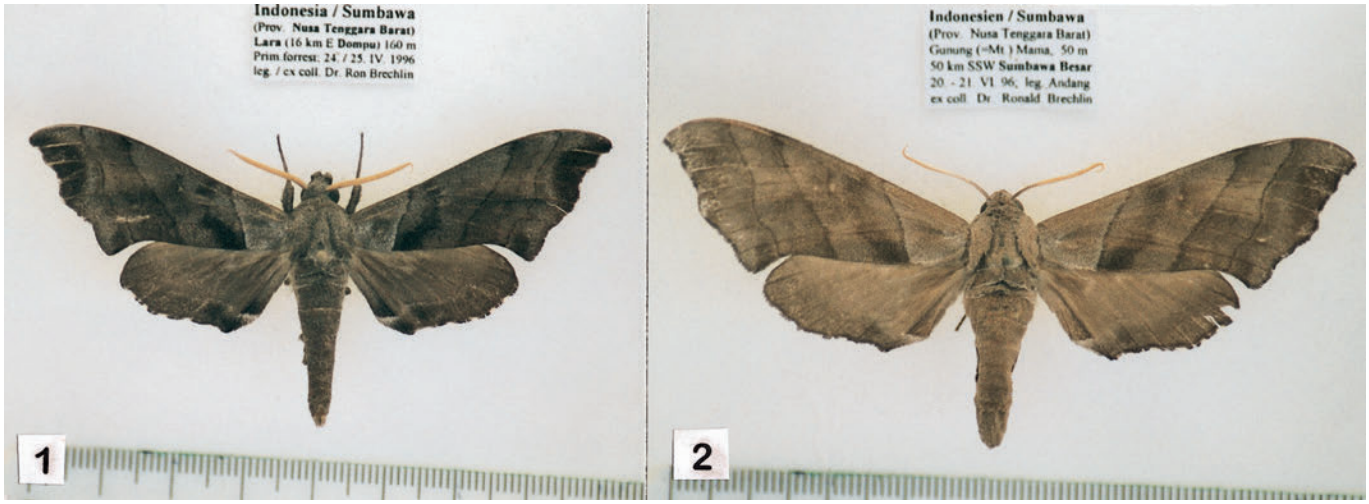
Indonesia / Sumbawa
(Prov. Nusa Tenggara Barat)
Lara (16 km E Dompu) 160 m
Prim forrest: 24./25. IV. 1996
leg. / ex coll. Dr. Ron Brechlin
1
Indonesien / Sumbawa
(Prov. Nusa Tenggara Barat)
Gunung (=Mt.) Mama, 50 m
50 km SSW Sumbawa Besar
20. - 21. VI. 96; leg. Andang
ex coll. Dr. Ronald Brechlin
2

Colour plate, Figs. 1–2: *Polyptychus claudiae* sp. n. **Fig. 1:** Holotype ♂, Indonesia: NTB, Sumbawa, 16 km E of Dompu, Lara, primary/secondary forest, 160 m, 24.–25. IV. 1996, leg. R. Brechlin [in coll. Museum Witt, Munich, Germany, to be deposited later in the Zoologische Staatssammlungen München, Munich, Germany]. **Fig. 2:** Paratype (Allotype) ♀, Indonesia: NTB, Sumbawa, Gunung Mama, 50 km SSW Sumbawa-Besar, 50 m, 20.–21. VI. 1996, leg. Andang, CRBP. — Photographs: R.B. — Scale: cm with subdivisions in mm.

Andang; 27 ♂♂, Gunung Takan, 300 km SW of Sumbawa-Besar, 800 m, 10.–20. XII. 1996, leg. Andang; 4 ♂♂, Gunung Takan, 300 km SW of Sumbawa-Besar, 800 m, XI. 1997, leg. Andang; 4 ♂♂, 1 ♀ (**allotype**), Gunung Mama, 50 km SSW of Sumbawa-Besar, 50 m, 20.–21. VI. 1996, leg. Andang; 1 ♂, 2 ♀♀, Gunung Jereweh, 300 km from Sumbawa-Besar, 50 m, II. 1998, leg. Andang; 5 ♂♂, 1 ♀, Gunung Aimual, 150 km S of Sumbawa-Besar, 40 m, 11.–20. XI. 1996, leg. Andang; 1 ♂, Gunung Nanga Tumpu, 300 km SE of Sumbawa-Besar, 500 m, I. 1998, leg. Andang [CRBP]. — 1 ♂, 30 km W of Dompu, Kempo, 80 m, primary/secondary forest, 17.–18. III. 1996, leg. & ex coll. R. Brechlin, BMNH sphingid slide #1089; 1 ♂, Gunung Takan, 300 km SW of Sumbawa-Besar, 800 m, 10.–20. XII. 1996, leg. Andang, ex coll. R. Brechlin; 3 ♂♂, Gunung Nanga Tumpu, 300 km SE of Sumbawa-Besar, 500 m, I. 1998, leg. Andang, ex coll. R. Brechlin (1 ♂ BMNH sphingid slide #1090) [BMNH]. — 17 ♂♂, Dompu, Madapangga, I. 2000, leg. local collectors (ex H. Schnitzler) (1 ♂ genitalia preparation JMC 01-5); 12 ♂♂, Adu area, Lara, II. 2000, leg. local collectors (ex H. Schnitzler) (1 ♂ genitalia preparation JMC 01-6) [CJMC]. — 2 ♂♂, Dompu, Madapangga, I. 2000, leg. local collectors (ex H. Schnitzler) [coll. Jean Haxaire].

Lombok (12 ♂♂): 1 ♂, I.–II. 1995 (ex R. Sato); 1 ♂, west slope of Gunung Rinjani, Baun Pussuk, 285 m, 25.–26. I. 2000, primary rain forest, leg. local collectors (ex U. Paukstadt); 1 ♂, same data but 30.–31. I. 2000; 2 ♂♂, same data but 3.–4. II. 2000; 1 ♂, same data but 9.–10. II. 2000; 1 ♂, same data but 10.–11. II. 2000; 1 ♂, same data but 13.–14. II. 2000 (genitalia preparation JMC 01-7); 1 ♂, same data but V. 2000; 3 ♂♂, Pussuk Pass and surroundings, 350–600 m, 20. III.–10. IV. 2000, leg. local collectors (ex S. Naumann) [CJMC].

Indonesia, NTT, Sumba (29 ♂♂): 19 ♂♂, Gunung Ares, III. 1997, 50 m, leg. Andang [CRBP]. — 1 ♂, same data, ex coll. R. Brechlin, BMNH sphingid genitalia slide #1088 [BMNH]. — 1 ♂, road between Waingapu and Waikabubak, near Lewapaku, km 57, 500 m, 9.–12. XII. 1985, U.V. trap, leg. J. D. Weintraub; 8 ♂♂, Kapaku-Tanah Kelungku area, Langgaliru, XI. 1998, leg. local collectors (ex H. Schnitzler) (1 ♂ genitalia preparation JMC 01-4) [CJMC].

Komodo: 1 ♂, Loh-Liang, 0–10 m, 7.–8. IV. 1996, leg. R. Brechlin [CRBP].

Flores (16 ♂♂, 1 ♀): 8 ♂♂, 15 km E of Labuhanbajo, 200 m, primary forest, 9.–12./22. IV. 1996, leg. R. Brechlin (1 ♂ genitalia preparation 247-2000 [CRBP]. — 1 ♂, Bea Nio, 400 m, VIII. 1953, leg. J. M. A. van Groenendael (ex coll. ZMA) (genitalia preparation JMC 01-3); 2 ♂♂, Ruteng area, Kampung Lebor, 700 m, V. 1993, leg. local collectors (ex U. Paukstadt); 1 ♂, Ruteng area, Liang Puring, 800 m, XI. 1995, leg. local collectors (ex U. Paukstadt); 3 ♂♂, Ruteng area, Desa Redong, 855 m, 15.–26. V. 2000, leg. local collectors (ex U. Paukstadt) (1 ♂ genitalia preparation JMC 01-2) [CJMC]. — 1 ♂, Bea Nio, 400 m, VIII. 1953, leg. J. M. A. van Groenendael; 1 ♀, Savu Valley, Wolosambi, 150 m, 16. XII. 1952, leg. J. M. A. van Groenendael [ZMA].

Timor (6 ♂♂): 1 ♂, SE slope of Gunung Mutis, Kapan, 1320 m, 19.–24. IV. 1993, leg. U. Paukstadt; 1 ♂, SE slope of Gunung Mutis, Kapan, 700 m, IV. 1993, leg. local collectors (ex U. Paukstadt); 2 ♂♂, same data but 800 m; 1 ♂, same data but 1320 m (genitalia preparation JMC 01-1) [CJMC]. — 1 ♂, SE slope of Gunung Mutis, Kapan, 800 m, IV. 1993, leg. local collectors (ex U. Paukstadt, ex coll. J.-M. Cadiou) [USNM].

Etymology: This species is named after Ms. Claudia Schmick, Munich, Germany, who accompanied the first author during his three-month expedition through the Lesser Sunda Islands in 1996.

Description

♂ (Fig. 1): fwl.: 31–40 mm (average 36.7 mm, n = 97, in CRBP). In external appearance, *Polyptychus claudiae* n. sp. is most conveniently diagnosed with respect to *Polyptychus trilineatus* Moore, 1888, which it closely resembles. In general, *claudiae* is smaller than *trilineatus*, its ground colour is greyish (rather than the brownish tone of *trilineatus*) and the contrast between this ground colour and the darker transverse lines and bands is rather stronger. At the costa, the forewing submarginal line in *claudiae* is bent towards the base so that it meets the costa approximately at right angles. In contrast, in *trilineatus* this line either runs straight to the costa, meeting it at a basal angle of between 30° and 40°, or is turned slightly outward. We found no consistent difference among *claudiae* from different islands and

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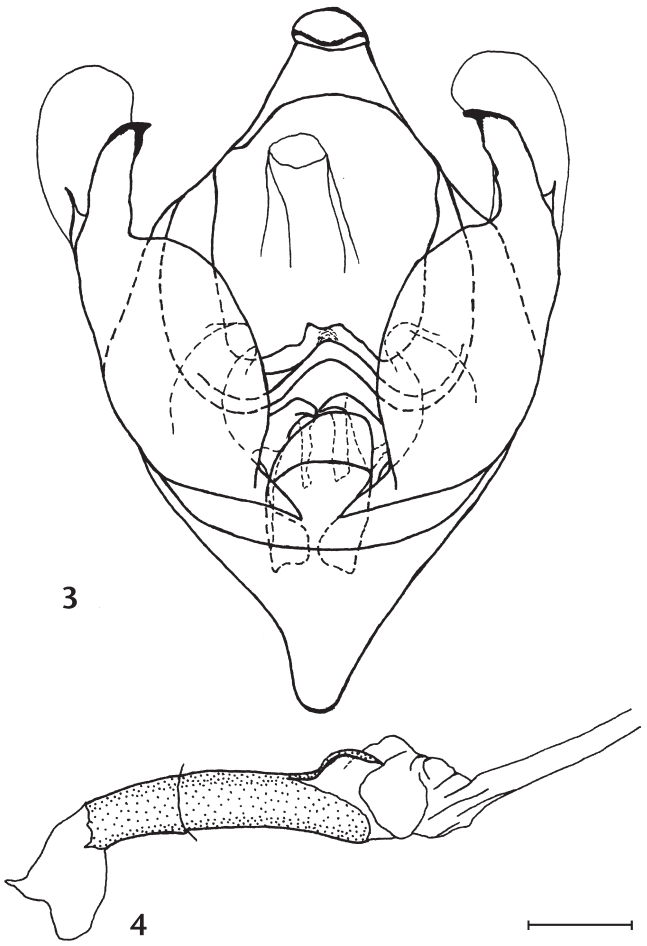
thus considered it appropriate to include all specimens in the type series. However, both *claudiae* and *trilineatus* are variable and none of these external characters consistently distinguishes all specimens of *claudiae* from all specimens of all subspecies of *trilineatus*. Most *trilineatus* are larger than *claudiae*, especially the nominotypical subspecies, *t. trilineatus* (fwl. 45–55 mm, average 49.2 mm, n = 14 in BMNH excluding bred specimens). However, the Sri Lankan subspecies, *P. t. luteatus* Rothschild & Jordan, 1903, approaches *claudiae* in size with some degree of overlap in range (fwl. 38–43 mm, average 40.2 mm, n = 5 in BMNH), as does the Sulawesi subspecies, *P. t. celebensis* Clark, 1929 (fwl. 37–44 mm, average 41.9 mm, n = 12 in BMNH). However, *t. luteatus* can be readily distinguished from *claudiae* by its brownish ground colour and the smooth outer margin of the forewing (which is also seen in other *trilineatus* subspecies such as *t. celebensis* and *P. t. philippinensis* Rothschild & Jordan, 1903). In contrast, the outer edge of the forewing in *claudiae* is crenulate, as it is in some subspecies of *trilineatus,* particularly the nominotypical subspecies. The greyish ground colour and contrasting pattern of *claudiae* is generally diagnostic. However, occasional specimens are brown (two specimens from Timor and one from Lombok in CJMC) or relatively uniformly patterned. The shape of the forewing submarginal line holds for most *claudiae*. However, one specimen from Timor has this line running straight to the costa while another from Sumbawa is asymmetrical, with the line on the left wing running straight to the costa and that of the right wing bent slightly basally (both specimens in CJMC). In all *trilineatus* we examined, the forewing submarginal line runs straight to the costa with the exception of two specimens of *t. celebensis* in which it bends basally (in CJMC). However, in addition to its dark brown coloration, *t. celebensis* can be easily distinguished from *claudiae* by the strongly falcate forewing apex (this feature is also present, though to a lesser extent, in *t. philippinensis*).

Finally, the nearest *Polyptychus* populations geographically to *claudiae* are those on Java and Bali. These, however, conform to the standard *trilineatus* phenotype in that they are large, brown, poorly contrasting and with the forewing submarginal line running straight to the costa (see Dupont & Roepke 1941: plate 16, fig. 5) and belong to *P. t. javanicus* Roepke, 1941.

♂ **genitalia** (Fig. 3): Uncus a single hook; subapically spatulate in dorsal view (although sometimes only slightly so); compressed somewhat dorso-ventrally, with a subventral ridge along each side and around the apex, which bears a minute notch. Gnathos well developed; lateral arms strongly concave in posterior view, broadly rounded antero-laterally; medially fused and strongly convex; overall shape, in ventral view, like the Greek letter omega (ω), the median curve varying from a shallow arc to a sharp angle. Tegumen broad, anterior margin evenly curved or with a slight rounded obtuse angle.



Figs. 3–4: ♂ genitalia, *Polyptychus claudiae* sp. n., Indonesia, Nusa Tenggara Barat, Sumbawa, Gunung Nanga Tumpu, 300 km SE of Sumbawa-Besar, 500 m, I. 1998, leg. Andang, ex CRBP, BMNH sphingid slide #1090, [BMNH]. **Fig. 3:** Genital capsule, ventral view. **Fig. 4:** Aedeagus, ventral side uppermost. — Drawings: I.J.K. — Scale: 1 mm.

Vinculum V-shaped or slightly Y-shaped. Saccus short. Juxta horizontal or sloping slightly upwards anteriorly, projecting posteriorly as a rounded lip and anteriorly as a pair of lateral sclerotized bars, the anterior ends of which are broadened and twisted over dorsally. Valve deep, basal two-thirds of outer surface evenly sclerotized, distal section and most of inner surface entirely membranous. Stridulatory scales absent. Sacculus with a well-developed bulge on its inner surface. Harpe a flattened, inwardly and dorsally curved hook; basally variable in width and apically pointed; inner edge smooth or with a variably developed row of small teeth. Transtilla well developed, curving towards the midline (around and following the ventral edge of the gnathos). Labides a pair of smooth, pointed prongs arising from the median ends of the transtillae, directed posteriorly and ventrally towards the apex of the lip of the juxta and exceeding the apex of the gnathos medially. Each labis has a weak, anteriorly directed sclerotized bar in the membrane lying above the juxta. Cuticular simplex short, about half the length of the aedeagus. Aedeagus tubular, slightly curved and angled upward, emerging diagonally between the juxta arms and projecting over the dorsal surface of the lip of the juxta. Distal margin of aedeagus

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strongly cut back ventrally, in which membranous region is a weakly-sclerotized, longitudinal bar, lacking apical ornamentation (Fig. 4). Vesica membranous, inflated basally to form two shallow, rounded, subventral sacs. Beyond apex of ventral bar, vesica is angled slightly downward, so as to be directed posteriorly. Dorsal and subventral diverticula absent.

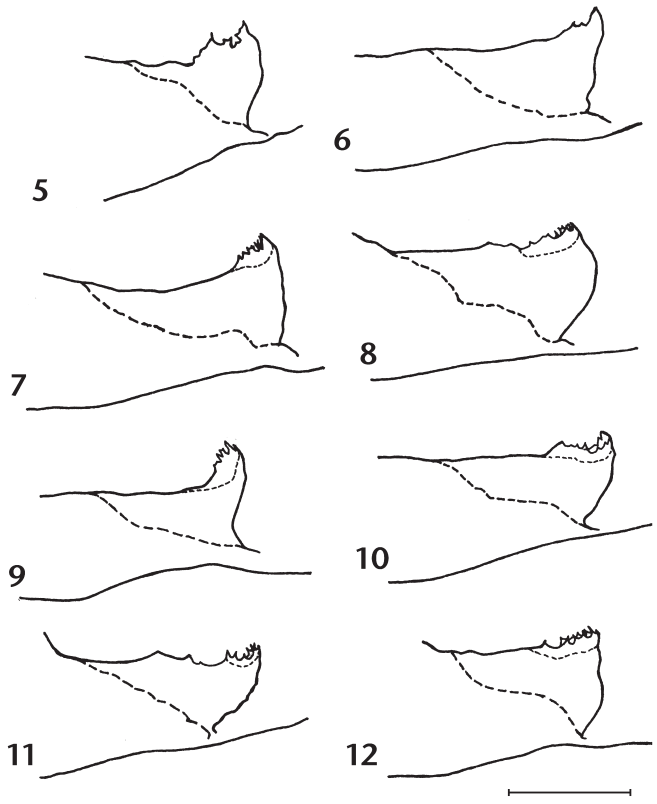
Variation: The shapes of the various components of the genitalia are subject to minor individual variation. However, no constant, significant differences were observed among the genitalia of specimens from Lombok (n = 1), Sumbawa (n = 4), Sumba (n = 2), Flores (n = 3) and Timor (n = 1).

Diagnosis: The ♂ genitalia of *claudiae* are most similar in general structure to those of *Polyptychus trilineatus* but differ in several features. In all subspecies of *trilineatus*, the gnathos is either represented by a narrow ridge or is absent, the juxta is fused to the valves basally and the ventral lip of the juxta has an elongate extension (which is developed into an asymmetrical "fish-tail" structure in some *trilineatus* subspecies). There is also a short, dorsolateral process on the right of the juxta in *trilineatus* (see Jordan 1938) that is absent in *claudiae*.

♀ (Fig. 2): fwl. 37–45 mm (average 41.2 mm, n = 5 in CRBP). Similar to the ♂ but larger, with thinner antennae, a less pronounced forewing apex and a less crenulate outer marginal border.

♀ genitalia: Not examined.

Preimaginal instars: Unknown.



Distribution

Polyptychus trilineatus is currently known from continental Southeast Asia, Sri Lanka, the Andamans, the Philippines, Sulawesi and the Greater Sunda Islands (Sumatra, Borneo, Java and Bali). So far, *Polyptychus claudiae* is known only from the Lesser Sunda Islands, from Lombok to Timor. Thus, *claudiae* is not currently known to overlap with *P. trilineatus*. No specimen of *claudiae*, or of any other species of *Polyptychus*, is currently known from east of Timor.

Biology

P. claudiae is attracted to light only in the early hours of the morning from about 4.30 to 5.00 h (about 1–1½ hours before sunrise) (R. Brechlin, pers. obs.). In contrast, a ♀ of *P. t. trilineatus* in Thailand was attracted to light at 21.55 h (I. J. Kitching, pers. obs.).

The status of *Theretra natashae paukstadtorum*

Theretra natashae Cadiou, 1995: Lambillionea **95:** 510.
= *Theretra natashae paukstadtorum* Eitschberger, 2000: Atalanta **31:** 497, **syn. nov.**

Theretra natashae Cadiou, 1995 was first described from the island of Flores. More recently, Eitschberger (2000) described a series of specimens of this species from Lombok as *Theretra natashae paukstadtorum*. The new subspecies was stated to differ in appearance from the nominotypical subspecies primarily in the weaker dark markings of the forewing upperside, especially the diagonal line and basal bands, and hindwing underside, particularly the transverse bands and outer marginal area. This results in moths with a paler and less contrasting pattern. In addition, most specimens of *T. n. paukstadtorum* had a reddish-violet tone on the forewings when compared to the specimens of the nominotypical subspecies examined.

We can now report that in addition to Lombok and Flores, *T. natashae* has now also been found on Sumbawa and Sumba. Study of material from all four islands led us to conclude that *T. natashae paukstadtorum* falls within

Figs. 5–12: ♂ genitalia, right harpes, *Theretra natashae*. **Fig. 5:** Indonesia, NTT, Flores, Rudeng area, Leda, 800 m, x. 1998, Eitschberger genitalia preparation 2809 [EMEM] (redrawn from Eitschberger 2000: fig. 4). **Fig. 6:** Indonesia, NTB, Lombok, west slope of Gunung Rinjani, Baun Pussuk, primary rain forest, 285 m, 7.–8. i. 2000, Eitschberger genitalia preparation 2811 [EMEM] (redrawn from Eitschberger 2000: fig. 9). **Fig. 7:** Indonesia, NTB, Lombok, Pussuk Pass and surroundings, 350–600 m, 20. iii.–10. iv. 2000, leg. local collectors (ex S. Naumann), genitalia preparation JMC 01-10 [CJMC]. **Fig. 8:** Indonesia, NTB, Lombok, Batugendeng area, i. 1999, leg. S. Naumann, genitalia preparation JMC 01-11 [CJMC]. **Fig. 9:** Indonesia, NTT, Flores, Ruteng area, Liang Puring, 800 m, xi. 1995, leg. local collectors (ex U. Paukstadt), genitalia preparation JMC 01-12 [CJMC]. **Fig. 10:** Indonesia, NTB, Flores, 15 km E Labuhanbajo, 200 m, primary forest, 9.–12. iv. 1996, leg. R. Brechlin, genitalia preparation 244-2000 [CRBP]. **Fig. 11:** Indonesia, NTB, Sumbawa, Gunung Takan, 300 km SW Sumbawa-Besar, 800 m, xi. 1997, leg. Andang, genitalia preparation 245-2000 [CRBP]. **Fig. 12:** Indonesia, NTT, Sumba, Gunung Ares, iii. 1997, 50 m, leg. Andang, genitalia preparation 246-2000 [CRBP]. — Drawings: I.J.K. — Scale: 0.5 mm.

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the range of individual variation of the species and that there is thus no justification for recognizing the Lombok population as a subspecies.

The external characters given by Eitschberger (2000) to separate *paukstadtorum* from the nominotypical subspecies do not hold. We have specimens of *Theretra natashae* from the type locality of *paukstadtorum* on Lombok (CRBP, CJMC) that we cannot distinguish from the holotype of *natashae* on habitus. The dark brown pattern elements of the forewings of these Lombok specimens are just as dark as in the holotype of *natashae*, including the diagonal line and the two basal bands. Indeed, we have several Lombok specimens where the latter are darker. Conversely, we have Flores specimens (including paratypes of *natashae*) in which the diagonal line is weak or even obsolescent. With regard to the ground colour, it varies from brown to grey on all islands. In fact, both the ground colour and the pattern intensity are extremely variable individually and cannot be used to separate the populations, in either ♂♂ or ♀♀. Similarly, on the hindwing underside, the intensity of the two dark bands, the distinctness of the outer marginal area and the overall darkness of the colour pattern are individually variable on all islands. We have specimens from the nominotypical population (including paratypes) that match the characters given for *paukstadtorum* in this respect too. Interestingly, this variation in colour, from brown to grey, and in the intensity of the forewing diagonal line also occurs in *Theretra incarnata* Rothschild & Jordan, 1903 (J.-M. Cadiou, pers. obs.).

Although very similar in ♂ genital structure, Eitschberger (2000) noted that the harpe of *paukstadtorum* differed in shape from that of nominotypical *natashae* in being more elongate with a straighter distal edge (cf. Figs. 5 and 6). The sacculus was also said to be more elongate and slightly flatter. We examined additional material from Lombok (Figs. 7 & 8) and Flores (Figs. 9 & 10), together with specimens from Sumbawa (Fig. 11) and Sumba (Fig. 12). We found that the shapes of the sacculus and especially the harpe are much more variable in this species than was previously reported and encompass the variation observed by Eitschberger (2000). Eitschberger also noted slight differences in the structure and size of the signum of the corpus bursae between a ♀ from Flores and one from Lombok, but stated that whether it was a feature of subspecific value or not would only be determined by further dissections. We dissected two further ♀♀, both from Lombok, and found one was an almost perfect match for Eitschberger's specimen from Flores, while the other was a less close match for his specimen from Lombok. Therefore, we conclude that there are no consistent differences in the genitalia of either sex to justify the separation of *natashae* on Lombok as a subspecies.

New distribution records for some Lesser Sunda Islands *Hippotion* and *Theretra*

In addition to the new distribution data for *Theretra natashae* reported above, recent collecting has produced the following new island records.

Hippotion paukstadti Cadiou, 1995, originally described from Flores and Timor, is now also known from Lombok, Sumba (both CJMC) and Wetar (NTT) (CRBP).

In addition to Flores (Cadiou 1995) and the type locality, Sumba, *Theretra incarnata* Rothschild & Jordan, 1903 is now also recorded from Komodo (CRBP), Timor (CJMC), Wetar (CRBP) and Tanimbar (Maluku) (CRBP, CJMC).

Rothschild & Jordan (1903) recorded *Theretra insignis kuehni* (Rothschild, 1900) from Java, Damar ("Dammer Island") (NTT) and Tanimbar, while Dupont & Roepke (1941) added Sumatra. We have found this subspecies also on Lombok (CJMC), Sumbawa (CRBP), Sumba (CRBP), Komodo (CRBP), Flores (CJMC) and Timor (BMNH, CJMC). There is a ♀ in the BMNH labeled "Nanjang, C. China, 12. x. [19]29, rec. from Schmiedel" and a ♂ labelled "Nanjang, C. China, 24. x. [19]30, rec. from Schmiedel". We consider that this locality is erroneous. The nominotypical subspecies is found on the Andaman Islands.

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